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EXAMINER

TALBOT, MICHAEL

ART UNIT PAPER NUMBER

3722

DATE MAILED: 09/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/517,205

Applicant(s)

ROSBERG, NICLAS

Examiner

Michael W. Talbot

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/8/04, 2/21/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "two or more axial chambers, wherein each chamber encloses an annular piston" recited in claims 8 and 11 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The abstract of the disclosure is objected to because of undue length. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

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The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The disclosure is objected to because of the following informalities:

Refer to page 8, line 18, the word "I" should be changed to --In-- within the phrase "I previously known devices the transmission of force" so as to read --In previously known devices the transmission of force--.

Refer to page 9, line 12, the word "that" should be changed to --than-- within the phrase "for mounting that the pressure chamber 13" so as to read --for mounting than the pressure chamber 13--.

Appropriate correction is required.

Claim Objections

4. Claims 1,2,6,7,9 and 10 are objected to because of the following informalities:

Claim 1 recites the limitation "the other end" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the shaft" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the shape" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the axial direction" in lines 8 through 9. There is insufficient antecedent basis for this limitation in the claim.

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Claim 1 recites the limitation "the other direction" in line 12. There is insufficient antecedent basis for this limitation in the claim.

Claim 2 recites the limitation "the other end" in lines 3 through 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "the pressurization side" in lines 2 through 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "the relief side" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 7 recites in two occurrences the limitation "the part" in lines 2 through 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 9 recites the limitation "the other end" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 9 recites the limitation "the shape" in line 6. There is insufficient antecedent basis for this limitation in the claim.

Claim 9, line 8, the word "an" should be insert within the phrase "means is displaceable in axial direction" so as to read --means is displaceable in an axial direction--.

Claim 9 recites the limitation "the other direction" in line 11. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "the other end" in lines 3 through 4. There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the phrase "in particular" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 1, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 5, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 8, the phrase "two or more axial chambers, wherein each chamber encloses an annular piston" is best understood and broadly interpreted to indicate that the pressurized and relief chambers (left and right sides of piston d within chamber c) teaches the "two or more axial chambers" claim limitation and the "each chamber encloses an annular piston" claim limitation is taught by the identical, singular piston enclosed by both the pressurized and relief chambers (left and right sides of piston d within chamber c).

Regarding claim 9, the phrase "in particular" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 9, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 11, the phrase "two or more axial chambers, wherein each chamber encloses an annular piston" is best understood and broadly interpreted to indicate that the pressurized and relief chambers (left and right sides of piston d within chamber c) teaches the "two or more axial chambers" claim limitation and the "each chamber encloses an annular piston" claim limitation is taught by the identical, singular piston enclosed by both the pressurized and relief chambers (left and right sides of piston d within chamber c).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 84/04367. WO 84/04367 shows in Figures 1-3 a hydro-mechanical clamping device having one end capable of being mounted in a machining device and another end capable of releaseably holding a shaft (b) of a tool. WO 84/04367 shows the hydro-mechanical clamping device comprising an inner sleeve (containing surface e) with an axial bore for receiving the shaft of the tool (Fig. 1) and an outer sleeve (containing surface f) enclosing at least one chamber (c) in which a clamping means in the shape of an annular piston (d) is enclosed. WO 84/04367 shows the piston by means of hydraulically operating means is displaceable in an axial direction (page 5, lines 13-20), wherein the piston and the inner sleeve have interacting conical surfaces (page 5, lines 10-13) having a conicity that is self-locking (page 5, lines 24-26), wherein axial displacement of the piston in one direction causes radial displacement of the inner sleeve for clamping the shaft and axial displacement of the piston in another direction causes relief of the inner sleeve for releasing the shaft (page 5, lines 13-20). WO 84/04367 shows the chamber

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including a pressurized chamber (to the left side of piston d within chamber c as viewed in Fig. 1) and a relief chamber (to the right side of piston d within chamber c as viewed in Fig. 1). WO 84/04367 shows the inner sleeve (containing surface e) and outer sleeve (containing surface f) being joined together by welding (Fig. 1 at j, Fig. 3 at m,n and col. 7, lines 3-25). WO 84/04367 shows a sealing means in the shape of O-rings arranged between the piston and the outer sleeve (col. 5, lines 20-24). WO 84/04367 shows a part intended for clamping a tool is integrated with a part intended for mounting in a machining device (Figs. 1 and 3).

9. Claims 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 84/04367. WO 84/04367 shows in Figures 1-3 a hydro-mechanical clamping device having one end capable of being mounted in a machining device and another end capable of releaseably holding a tool (a). WO 84/04367 shows the hydro-mechanical clamping device comprising an inner sleeve (containing surface e) and an outer sleeve (containing surface f) enclosing at least one chamber (c) in which a clamping means in the shape of an annular piston (d) is enclosed. WO 84/04367 shows the piston by means of hydraulically operating means is displaceable in an axial direction (page 5, lines 13-20), wherein the piston and the inner sleeve have interacting conical surfaces (page 5, lines 10-13) having a conicity that is self-locking (page 5, lines 24-26), wherein axial displacement of the piston in one direction causes radial expansion of the outer sleeve for clamping the tool and axial displacement of the piston in another direction causes relief of the outer sleeve for releasing the tool (page 5, lines 13-20). WO 84/04367 shows the chamber including a pressurized chamber (to the left side of piston d within chamber c as viewed in Fig. 1) and a relief chamber (to the right side of piston d within chamber c as viewed in Fig. 1).

10. Claims 1-3 and 5-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Firestone et al. '759. Firestone et al. '759 shows in Figures 2 and 3 a hydro-mechanical

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clamping device having one end (at 81) capable of being mounted in a machining device and another end capable of releaseably holding a shaft (75) of a tool. Firestone et al. '759 shows the hydro-mechanical clamping device comprising an inner sleeve (40,70) with an axial bore for receiving the shaft of the tool (Fig. 3) and an outer sleeve (10,11) enclosing at least one chamber (space above and below piston 14) in which a clamping means in the shape of an annular piston (14) is enclosed. Firestone et al. '759 shows the piston by means of hydraulically operating means (66,67) is displaceable in an axial direction (col. 2, lines 32-46), wherein the piston and the inner sleeve have interacting conical surfaces (16,59) having a conicity that is self-locking (via ball 60), wherein axial displacement of the piston in one direction causes radial displacement of the inner sleeve for clamping the shaft and axial displacement of the piston in another direction causes relief of the inner sleeve for releasing the shaft (col. 2, lines 32-46). Firestone et al. '759 shows the chamber including a pressurized chamber (space above piston 14 within chamber as viewed in Fig. 3) and a relief chamber (space below piston 14 within chamber as viewed in Fig. 3). Firestone et al. '759 shows a sealing means in the shape of O-rings (45) arranged between the piston and the outer sleeve and further arranged closer to the pressurization side of the piston than to the relief side. Firestone et al. '759 shows a part intended for clamping a tool is integrated with a part intended for mounting in a machining device (Figs. 1 and 3).

11. Claims 1-3 and 5-8 are rejected under 35 U.S.C. 102(b) as being anticipated by DE 3502362. DE 3502362 shows in the Figure a hydro-mechanical clamping device having one end (right side as viewed in Fig.) capable of being mounted in a machining device and another end capable of releaseably holding a shaft of a tool. DE 3502362 shows the hydro-mechanical clamping device comprising an inner sleeve (6,7,8) with an axial bore for receiving the shaft of the tool and an outer sleeve (1,2) enclosing at least one chamber (10,20) in which a clamping

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means in the shape of an annular piston (3,5) is enclosed. DE 3502362 shows the piston by means of hydraulically operating means (17,18) is displaceable in an axial direction (Abstract), wherein the piston and the inner sleeve have interacting conical surfaces (tapered surface 5 and tapered surfaces 6,7) having a conicity that is self-locking (via ball 19 and Abstract), wherein axial displacement of the piston in one direction causes radial displacement of the inner sleeve for clamping the shaft and axial displacement of the piston in another direction causes relief of the inner sleeve for releasing the shaft (Abstract). DE 3502362 shows the chamber including a pressurized chamber (10) and a relief chamber (20). DE 3502362 shows a sealing means in the shape of O-rings (13,14) arranged between the piston and the outer sleeve and further arranged closer to the pressurization side of the piston than to the relief side. DE 3502362 shows a part intended for clamping a tool is integrated with a part intended for mounting in a machining device (Figs. 1 and 3).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Firestone et al. '759. Firestone et al. '759 discloses the claimed invention except for type of connection joining the inner and outer sleeves. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to join the inner and outer sleeves through welding for the purpose of permanent securement because it has been held to be within the general skill of a worker in the art to select a known joining method on the basis of its suitability for the intended use as a matter of obvious design choice.

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14. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over DE 3502362. DE 3502362 discloses the claimed invention except for type of connection joining the inner and outer sleeves. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to join the inner and outer sleeves through welding for the purpose of permanent securement because it has been held to be within the general skill of a worker in the art to select a known joining method on the basis of its suitability for the intended use as a matter of obvious design choice.

Conclusion

15. Any inquiry concerning the content of this communication from the examiner should be directed to Michael W. Talbot, whose telephone number is 571-272-4481. The examiner's office hours are typically 8:30am until 5:00pm, Monday through Friday. The examiner's supervisor, Mrs. Monica S. Carter, may be reached at 571-272-4475.

In order to reduce pendency and avoid potential delays, group 3720 is encouraging FAXing of responses to Office Actions directly into the Group at FAX number 571-273-8300. This practice may be used for filling papers not requiring a fee. It may also be used for filing papers, which require a fee, by applicants who authorize charges to a USPTO deposit account. Please identify Examiner Michael W. Talbot of Art Unit 3722 at the top of your cover sheet.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you

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would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



MWT
Examiner
30 August 2006


MONICA CARTER
SUPERVISORY PATENT EXAMINER